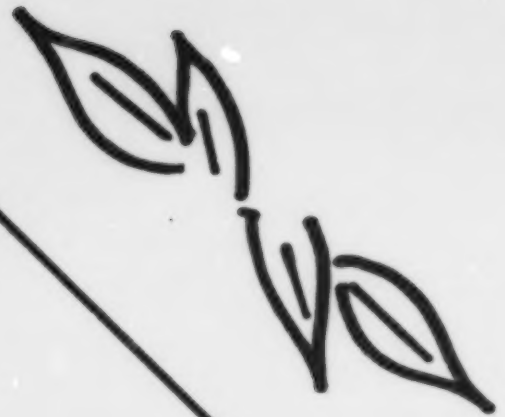




STATISTICAL REPORT
1984

Social Hygiene Services

**Sexually Transmitted
Diseases**

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OVERVIEW

INTRODUCTION

Social Hygiene Services is the branch of Social Services and Community Health responsible for all aspects of the sexually transmitted disease control program in Alberta. The goal of the service is to provide a comprehensive program for the control of sexually transmitted diseases and therefore makes available diagnostic and treatment services through clinics located in Edmonton, Calgary and Lethbridge, epidemiologic services, consultation to physicians, data monitoring, disease surveillance, and public and professional education. Although operated through the auspices of the health unit, the Fort McMurray clinic also provides these same services to that city and its surrounding communities.

THE DISEASES

Disease surveillance is maintained for the four notifiable diseases; gonorrhea, syphilis, chancroid and lymphogranuloma venereum.

There was a decrease in both the number of cases and rate for gonorrhea in 1984. The actual number of cases declined by 16.3%, while the rate of 279.8 per 100,000 population was reduced by 17.6%. For four consecutive years the incidence of gonorrhea has dropped in Alberta.

Although there has been an overall reduction in incidence, gonorrhea continues to be most prevalent in the 15-19 year age group. This age group accounted for 80% of cases reported. Female rates declined slightly more than male rates with the most noticeable reduction being in the female 25-29 year age group. Almost one third of cases occurred in those under 20 years of age. This group should continue to be the focus of education endeavors to increase awareness and sustain efforts to reduce the attendant disease complications.

Two cases of gonorrhea were reported in children under 1 year. Although both cases were acquired during birth, neither was ophthalmia neonatorum.

The number of cases of syphilis climbed from 306 in 1983 to 574 in 1984, an increase of 87.6% with a rate increase from 13.0 to 23.9 or 83.8%. Infectious syphilis continued to show the greatest rise comprising 84% of the total cases. The focus of the outbreak was Edmonton and although vigorous control measures were maintained by Social Hygiene Services containment of the outbreak was difficult to achieve. This was due in part to the lifestyles of the many infected individuals and their frequent inability to provide adequate contact information.

The cases of penicillinase-producing Neisseria gonorrhoeae increased from 15 in 1983 to 60 cases reported in 1984. Approximately 80% of the cases were attributable to an outbreak in Calgary which did extend to the Edmonton area.

One case of chancroid was reported in 1984. It was diagnosed in an individual who had exposure while travelling in an endemic area. There were no reported cases of lymphogranuloma venereum.

A study done in the Edmonton clinic in 1984 indicated non-gonococcal urethritis was seen more frequently in both sexes than gonorrhea with a ratio of 1.6:1 and 1.3:1 in males and females respectively. Although non-gonococcal urethritis was a non-reportable infection in 1984, the Edmonton clinic study indicates that this disease presents a major problem in our population.

Numbers of cultures for herpes simplex continued to increase indicating an ongoing concern regarding this infection by the public using clinic facilities.

The Programs:

Client utilization of Social Hygiene Clinics remained high despite the marked drop in incidence of gonorrhea. Weekly visits to the two major clinics in Edmonton and Calgary averaged 324 and 260 respectively.

The Edmonton clinic placed special emphasis on control measures established to contain the outbreak of infectious syphilis in the inner city area. Through concentrated clinic staff participation and media cooperation the public was

made aware of the magnitude of the problem.

Control of the penicillinase-producing Neisseria gonorrhoeae outbreak in Calgary was achieved through implementation of specific control measures to identify and appropriately treat new cases and intensified contact tracing activities.

Public awareness and education continue to be a priority of Social Hygiene Services. To inform the public of the availability of S.T.D. services in Alberta both television and radio were utilized. In February, a television advertisement was aired in most areas serviced by clinics. In October a specially produced radio advertisement was heard on stations throughout the province. A new poster with the same theme was distributed to all health unit areas to coincide with the public awareness campaign.

The number of educational presentations to a wide variety of audiences did not change appreciably from 1983. However a 13% increase in presentations given to high school groups indicates an increased shift in focus towards this target population. A fourth pamphlet, entitled "Crabs" was added to the S.T.D. information series made available to the public by this division.

CASES OF REPORTED CONFIRMED
NOTIFIABLE DISEASES
TABLE 1

Table 1 indicates the number of cases notifiable diseases reported to Social Hygiene Services in 1984.

The reported number of cases of confirmed gonorrhea decreased by 1309 from 1983, producing a 16.3% decline. This marks the third consecutive year a reduction in the number of cases has occurred. Male cases exceeded female cases by 1082 while the male to female ratio of 1.38:1 remains similar to the previous year. Neither case of gonorrhea in children under one year of age was ophthalmia neonatorum but was due to an infection acquired during birth.

The 574 cases of syphilis counted in 1984 represents an 87.6% increase over the proceeding year when 306 cases were recorded. Infectious syphilis (primary, secondary and early latent) comprised 84.0% of the total, an increase from 61.1% in 1983. Late latent dropped by 34 from 1983 and contributed only 13.4% to the total count. Late disease in the form of neurosyphilis was diagnosed in 5 persons and 2 of the congenital syphilis cases which occurred were reported in newborns. The male to female ratio of 2.8:1 demonstrates a slight shift in the direction of male infections from 1983 when the ratio was 2.3:1.

The cases of chancroid was diagnosed in an individual who had travelled to an endemic area and acquired the infection while abroad.

TABLE 1

ALBERTA: 1984

CASES OF REPORTED CONFIRMED NOTIFIABLE DISEASE

	1		1 - 4		5 - 9		10 - 14		15 - 19		20 - 24		25 - 29		30 - 39		40 - 59		60 +		Age N/S		TOTAL
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
GONORRHEA	1	1		1		1		41	453	928	1455	1112	981	432	656	232	303	46	15	1	31	20	6712
CHANCROID											1												1
SYPHILIS (TOTAL)	2						1	2	15	29	79	44	76	20	97	20	125	29	26	9			574
PRIMARY							1	2	15	18	73	31	63	12	80	11	87	17	12				422
SECONDARY										8	4	9	4	4	4	3	13	4					53
EARLY LATENT										1		2			2		2						7
LATE LATENT											1	2	6	4	9	6	22	7	12	8			77
LATENT UNSPECIFIED													1										1
NEURO-SYPHILIS																	1	1	2	1			5
ACQUIRED-STAGE UNKN.										2	1		1		2								6
CONGENITAL	2												1										3
TOTAL	3	1	-	1	-	1	3	43	468	957	1535	1156	1057	452	753	252	428	75	41	10	31	20	7287

Gonorrhea: Male 3897 Syphilis: Male 421
 Female 2815 Female 153

INCIDENCE RATES FOR GONORRHEA AND SYPHILIS
TABLES 2 and 3

The incidence rate for gonorrhea showed a significant decline of 17.6% from 1983; 339.3 to 279.8.

The highest age specific rate occurred in the 20-24 year old group. Eighty percent of disease occurrence was attributable to the 15-29 age group. 58.8% occurred in the 15-24 bracket and the individual age group 15-19, 20-24 and 25-29 contributed 20.6%, 38.2% and 21.1% respectively to the total infections reported. These observations have not shifted to any degree for the past 5 years.

There were similar declines in the incidence rates for both males and females, 17.0% and 18.5% respectively. The highest age-specific rate was noted for males 20-24 years with females age 15-19 showing a rate only slightly less. Greater than one third (34.5%) of all female cases occurred in those 19 years or under.

An 83.8% increase over 1983 was recorded in the incidence rate for syphilis; 13.0 to 23.9. Rises occurred in all age groups with the exception of females 60 years or more. High rates were noted in males for all groups between ages 20-59 while for females these were in the 15-19 and 20-24 groups only. Despite the shift back to a higher proportion of male infections, homosexually or bisexually acquired infections represented only 6.8% of the total syphilis cases and 7.1% of the infectious diseases whereas in 1983 these percentages were 15.0% and 22.5% respectively.

ALBERTA: 1984
DISEASE INCIDENCE
EXPRESSED AS A RATE PER 100,000 POPULATION

TABLE 2

GONORRHEA

Age Sex	15	15 - 19	20 - 24	25 - 29	30 - 39	40 - 59	60 +	TOTAL
Male	1.0	468.9	1113.2	668.3	307.0	133.4	12.9	317.7
Female	15.7	1012.0	893.9	325.3	119.1	21.7	0.7	240.1
TOTAL	8.2	733.4	1006.3	505.4	217.4	79.5	6.3	279.8

TABLE 3

SYPHILIS

Age Sex	15	15 - 19	20 - 24	25 - 29	30 - 39	40 - 59	60 +	TOTAL
Male	1.0	15.5	60.4	51.8	45.4	55.0	22.4	34.3
Female	0.7	31.6	35.4	15.1	10.3	13.7	6.6	13.1
TOTAL	0.9	23.4	48.2	34.3	28.6	35.1	13.8	23.9

NOTIFICATIONS BY REPORTING AGENCY

TABLE 4, GRAPH 1 and 2

Notification of confirmed gonorrhea received from physicians comprised 51.5% of the total reported. When combined with the number of cases where only a report of a positive culture was received this percentage increased to 56.3%, up slightly from the 53.3% noted in 1983. The Social Hygiene clinics in combination contributed 43.1% of those reported with the remaining 0.5% attributable to the Correctional Institutes.

While the number of reported gonorrhea cases was 16.3% less than in 1983, physician (plus positive culture) notified cases decreased by only 12.9% with a 19.3% decline in clinic reported cases. For patients seen by physicians, the male to female ratio was 1:1 with the clinics demonstrating a 2.3:1 ratio. This sex difference in service utilization was quite marked in the under 20 age group in which physicians reported two and a half times as many females as males.

Nearly 80% of syphilis cases were reported by the Social Hygiene clinics. Two thirds of the total were handled by the Edmonton clinic, the centre of the current outbreak.

TABLE 4

ALBERTA: 1984
 CASES OF CONFIRMED GONORRHEA
 ACCORDING TO REPORTING AGENCY
 BY AGE AND SEX

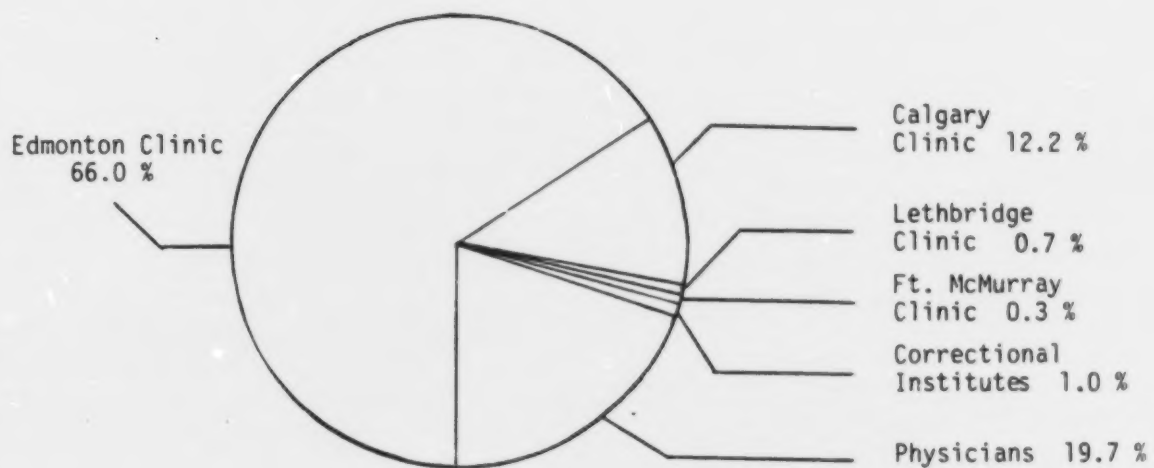
	1		1 - 4		5 - 9		10 - 14		15 - 19		20 - 24		25 - 29		30 - 39		40 - 59		60 +		Age N/S		TOTAL
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
PHYSICIANS	1	1		1			1	27	241	581	648	691	406	273	263	143	118	33	3	1	17	11	3460
EDMONTON CLINIC							8		98	162	346	187	268	74	188	49	96	5	6		4		1491
CALGARY CLINIC							1	1	72	134	344	150	237	44	146	22	60	4	4				1219
LETHBRIDGE CLINIC									6	4	29	10	18	2	8		12						89
FT. MCMURRAY CLINIC								3	10	12	30	8	9	2	15	2	5						96
CORR. INSTIT.									5		6	2	11		6		2						32
POSITIVE CULTURES					1		2		21	35	52	64	32	37	30	16	10	4	2		10	9	325
TOTAL	1	1	-	1	-	1	2	41	453	928	1455	1112	981	432	656	232	303	46	15	1	31	20	6712

ALBERTA: 1984

PERCENTAGE OF REPORTED CONFIRMED CASES
OF GONORRHEA AND SYPHILIS BY REPORTING AGENCY

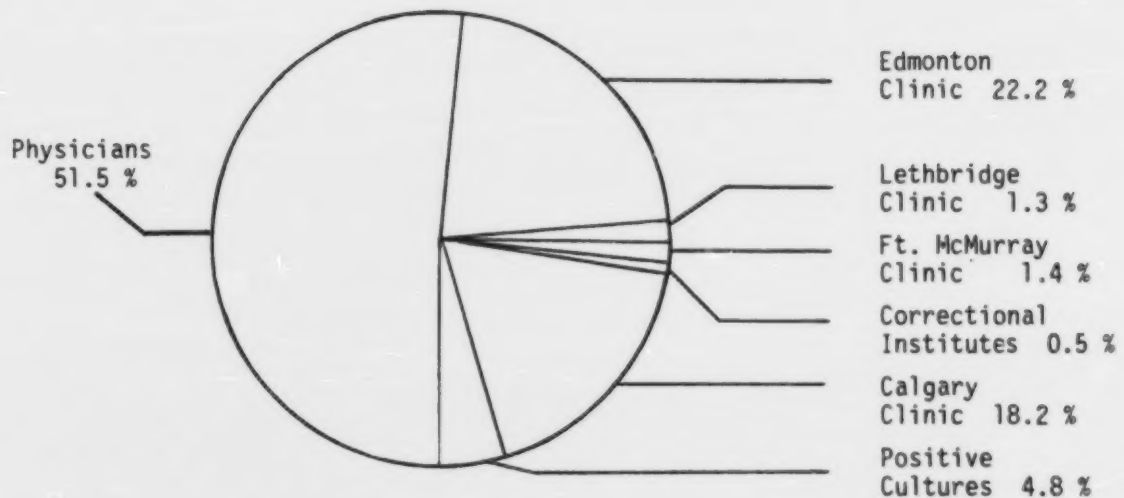
GRAPH 1

SYPHILIS



GRAPH 2

GONORRHEA



DISEASE TRENDS SINCE 1945

TABLE 5 and GRAPH 3

The table and accompanying graph depict cases and rates for gonorrhea and syphilis for the past 40 years.

The large decline in gonorrhea cases and rates observed in 1983 continues a trend noted in 1980 and 1981. Disease levels would appear to be returning to those noted in the early 1970's and before.

Both the number of cases and rate for syphilis increased dramatically in 1984 returning to levels noted only after the Second World War. This has been a sudden rather than gradual increase noticed in the past 2 years.

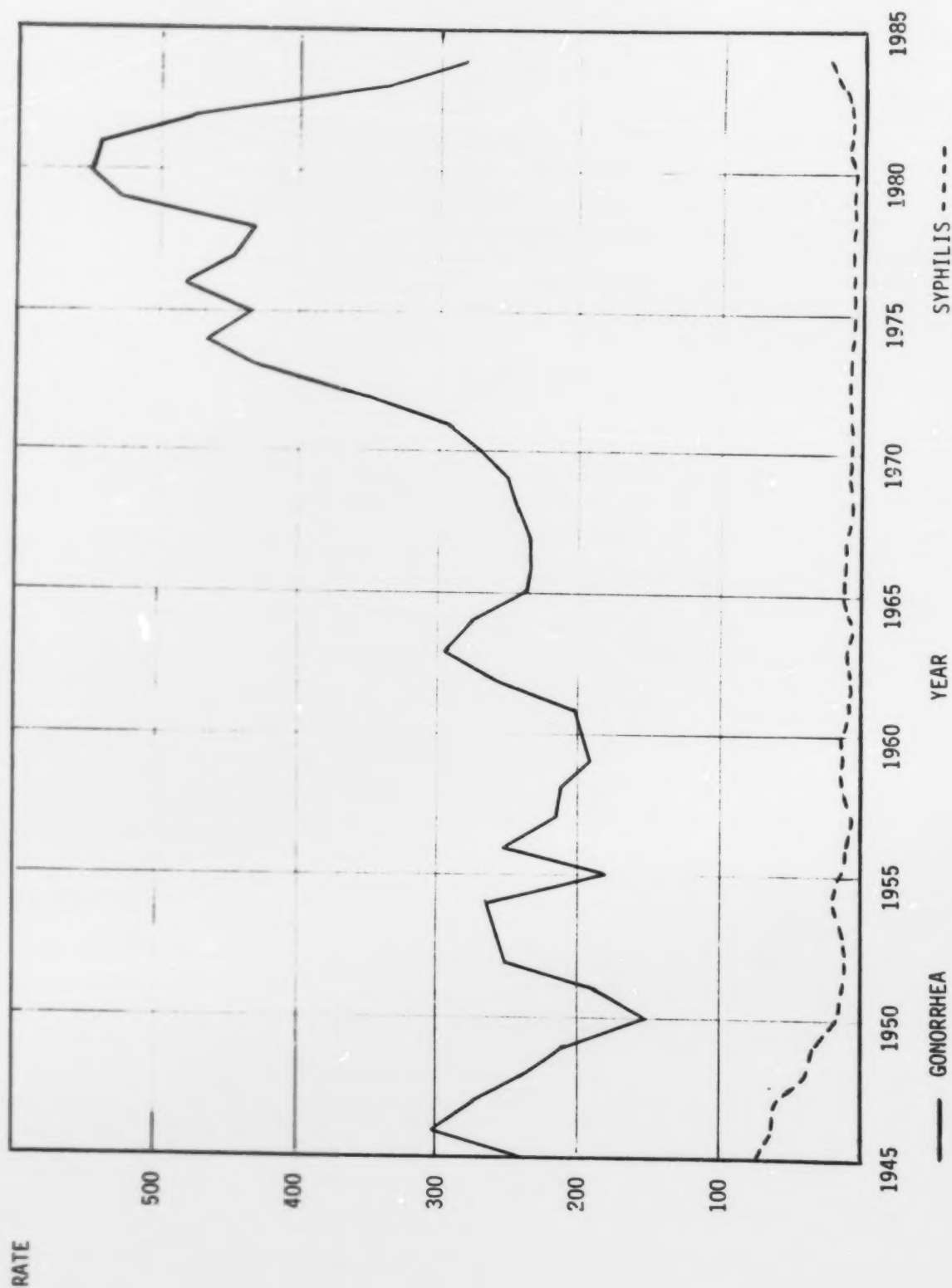
ALBERTA: 1945 - 1984

TABLE 5
SYPHILIS AND GONORRHEA
CASES AND RATES (PER 100.00 POPULATION)

YEAR	GONORRHEA		SYPHILIS		YEAR	GONORRHEA		SYPHILIS	
	Cases	Rates	Cases	Rates		Cases	Rates	Cases	Rates
1945	1,881	232.8	599	73.1	1965	3,455	238.3	203	14.0
1946	2,457	301.7	503	62.6	1966	3,447	235.7	208	14.2
1947	2,257	273.9	472	59.2	1967	3,527	236.7	203	13.6
1948	2,032	237.9	319	37.4	1968	3,729	244.4	118	7.7
1949	1,857	209.8	288	32.5	1969	3,967	254.3	133	8.5
1950	1,981	152.0	165	18.1	1970	4,290	268.1	134	8.0
1951	1,777	189.1	157	16.7	1971	4,806	294.1	127	7.8
1952	2,450	251.8	135	13.9	1972	5,842	353.2	143	8.6
1953	2,508	257.7	159	15.7	1973	7,300	434.5	158	9.2
1954	2,819	266.7	212	20.1	1974	8,036	466.9	136	7.8
1955	2,862	180.1	189	17.3	1975	7,341	432.4	121	5.9
1956	2,842	253.0	145	12.9	1976	8,657	480.3	108	5.7
1957	2,499	215.4	112	9.7	1977	8,208	446.6	132	7.2
1958	2,548	211.3	167	13.8	1978	8,451	430.9	165	8.4
1959	2,407	192.9	226	18.1	1979	10,730	529.9	173	8.5
1960	2,560	198.3	186	14.4	1980	11,474	547.8	181	8.6
1961	2,712	203.6	140	10.5	1981	11,692	540.2	255	11.8
1962	3,560	260.0	134	9.8	1982	11,066	476.3	225	9.7
1963	4,106	192.7	155	11.0	1983	8,021	339.7	306	13.0
1964	3,953	276.7	110	7.7	1984	6,712	279.9	574	23.9

GRAPH 3

ALBERTA
INCIDENCE RATES PER 100,000 POPULATION FOR SYPHILIS AND GONORRHEA
1945 - 1984



PPNG IN ALBERTA

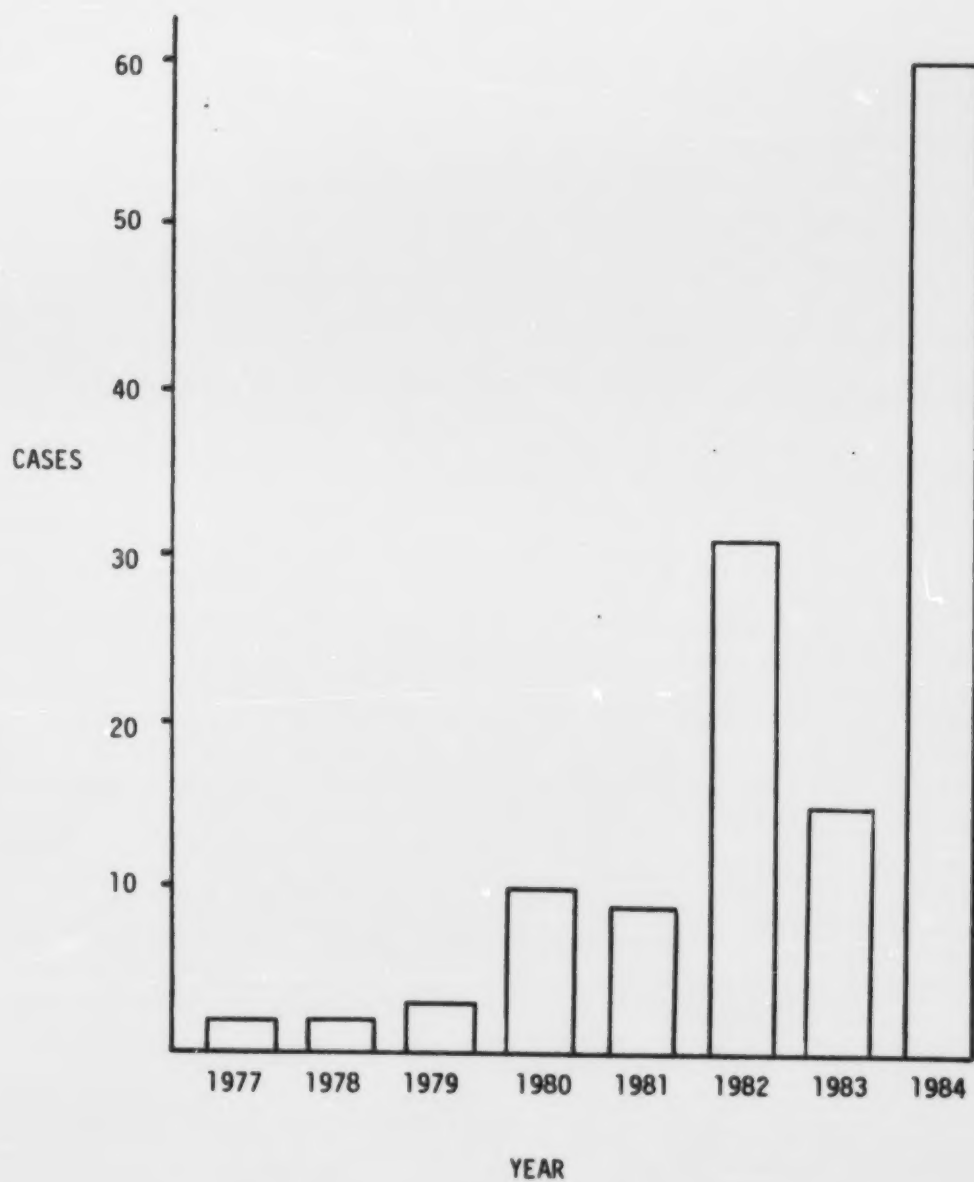
TABLE 6

Since the first case of penicillinase-producing Neisseria gonorrhoeae was identified in Alberta in 1977 there have been a total of 132 cases reported. The majority of cases were either acquired abroad or in endemic areas.

1984 saw a repeat of the localized outbreak experienced in 1982 although a greater number of infections were involved with the new epidemic. Approximately 30% of the 60 cases recorded in 1984 were associated with the outbreak which began in Calgary and spread to Edmonton.

TABLE 6

CASES of PENICILLINASE - PRODUCING
NEISSERIA GONORRHOEAE (PPNG)
in ALBERTA
1977 - 1984



NOTIFICATIONS AND CONTACT INFORMATION

TABLE 7

This table outlines both the total number of contacts that were named by clients utilizing the services of various reporting agencies as well as the number of those contacts for which sufficient information was forwarded to permit an investigation to be initiated.

Fifty-nine percent of the total contacts listed had sufficient information for investigation; this proportion is similar to that noted the previous 2 years.

Physicians reported an average of 0.7 contacts per notification while the clinics average ranged from 1.4 to 1.6 contacts per notification forwarded. A large porportion of notifications received from physicians do not list any contact information while almost all patients reported by the clinics have been interviewed regarding contacts.

Mobile clinic figures do not appear in this table as most persons located by that service would have been directed to a physician for disease confirmation and therefore would not usually be interviewed by the investigator.

TABLE 7

ALBERTA: 1984

NUMBER OF CONTACTS LISTED ON
NOTIFICATIONS RECEIVED FOR CONFIRMED
CASES OF GONORRHEA AND SYPHILIS

REPORTING AGENCY	TOTAL NOTIFICATIONS RECEIVED	CONTACTS - TOTAL LISTED ON NOTIFICATIONS	CONTACTS - SUFFICIENT INFORMATION for INVESTIGATIONS
Physicians	3572	2563	1544
Edmonton Clinic	1873	2733	1499
Calgary Clinic	1291	1826	1112
Lethbridge Clinic	93	130	80
Ft.McMurray Clinic	98	152	131
Correctional Instit.	37	39	24
TOTAL	6964	7443	4390

CONTACT INVESTIGATIONS BY CLINICS

TABLE 8

Investigations conducted by nurse investigators from each of the clinics include the follow-up of contacts to cases of confirmed disease and the location of persons for whom a report of a positive culture or serology has been received but no record of treatment is available.

The total number of investigations carried out in 1984 declined by 12.1% from 1983; this would be consistent with the reduction in gonorrhea incidence. Almost four-fifths (79.3%) of the investigations conducted resulted in the location and/or treatment of the contact. The ability of the Calgary clinic to locate the majority of contacts as compared to the other clinics is a reflection of the quality of contact information received from different patient populations and the focus in Edmonton and area on tracing contacts to infectious syphilis.

Investigation of contacts to cases of gonorrhea are closed after 3 months, while those to syphilis remain open for up to one year; 11.3% of contact investigations were closed in this manner with failure to locate the contact.

ALBERTA: 1984

NUMBER AND OUTCOME OF INVESTIGATIONS CARRIED OUT BY SOCIAL HYGIENE CLINICS

* Follow-up to positive cultures and serology.

SOCIAL HYGIENE CLINICS - WORKLOAD

TABLES 9 - 10

The number of new admissions and total patient visits declined slightly from 1983 with drops of 6.7% and 0.8% respectively. The decreases were noted for the Calgary and Lethbridge clinics only, with the remaining clinics experiencing increases. The two large clinics in Edmonton and Calgary recorded averages of 324 and 260 patient visits per week compared with figures of 303 and 299 for 1983.

The total for gonorrhea testing and the isolation rates have remained relatively constant with last year. As expected the number of darkfield examinations performed increased particularly in Edmonton with a large proportion of positive results.

Chlamydia cultures were performed 37% more frequently in 1984 but the isolation rate only rose from 15.1% in 1983 to 16.4% in 1984. The number of cultures for herpes increased by one third over the previous year but the isolation rate of the virus remained constant at 23.1%.

TABLE 9

ALBERTA 1984: SOCIAL HYGIENE CLINIC LABORATORY INVESTIGATIONS

URETHRAL SMEARS for <u>N. GONORRHOEAE</u>		EDMONTON CLINIC		CALGARY CLINIC		LETHBRIDGE CLINIC		FT. McMURRAY CLINIC	
	Male	Taken	Posi- tive	Taken	Posi- tive	Taken	Posi- tive	Taken	Posi- tive
GONORRHEA CULTURES MALE	Urethral	4021	841	1834	679	169	54	173	64
		7599	812	6901	555	378	68	489	51
	Rectal	397	31	775	90	8	0	5	0
	Pharyngeal	2028	29	2387	57	296	4	248	4
	TOTAL	10024	872	10063	702	682	72	742	55
GONORRHEA CULTURES FEMALE	Cervix/urethra	7702	878	4149	359	176	17	1100	52
		4132	166	3417	158	4	0	215	11
	Rectal								
	Pharyngeal	2914	62	1821	58	95	1	157	2
	TOTAL	14748	1106	9387	575	175	18	1472	65
DARKFIELD EXAMINATIONS for <u>T. PALLIDUM</u>		464	148	301	9	0	0	11	1
CULTURES FOR <u>CHLAMYDIA TRACHOMATIS</u>		5312	1026	4475	562	448	60	991	195
CULTURES for <u>HERPES SIMPLEX VIRUS</u>		1307	256	817	241	31	9	96	14
CULTURES for <u>CANDIDA ALBICANS</u> and <u>TRICHOMONAS VAGINITIS</u>		3122	804	1549	319	171	28	896	153

TABLE 10

ALBERTA: 1984

SEROLOGIC TESTS FOR SYPHILIS
PATIENT VISITS TO CLINICS

SEROLOGIC TESTS for SYPHILIS	EDMONTON CLINIC	CALGARY CLINIC	LETHBRIDGE CLINIC	FT. MCMURRAY CLINIC	MOBILE CLINIC
Clinic patients	10439	8471	414	524	130
Pre-marital	6146	8361	895	-	-
Pre-employment	223	-	-	46	-
Total	16808	16832	1309	570	130
PATIENT VISITS					
New admissions	5033	4327	374	404	-
Total visits	16884	13504	881	1575	655 *

* Mobile clinic records visits made to patients by investigators.

EDUCATION ACTIVITIES

TABLE 11

The education office of Social Hygiene Services makes available resource personnel for consultation and delivery of sexually transmitted disease information to a wide variety of audiences.

The total number of presentations delivered in 1984 did not change from the previous year however those given to high school groups increased by 13% indicating the continuing focus on education for this target population.

The public awareness strategy for 1984 took the form of both radio and television advertising. In February the television advertisement was again aired for a two week period and October saw the introduction of a radio advertisement. Public response to these productions indicated acceptance. Another pamphlet, entitled "Crabs" joined the STD series currently being developed by the education office.

TABLE 11

ALBERTA

STD EDUCATION SESSIONS PRESENTED IN 1984

<u>TYPE</u>	<u>NUMBER</u>
Schools - Junior High - - - - -	183
- Senior High - - - - -	136
College Programs - - - - -	19
Nursing/Health Care Education Programs - - - - -	26
Inservice: Hospitals/Institutions - - - - -	28
Health Units/Clinics - - - - -	17
Life Skills/ Adult Improvement - - - - -	60
General Public - - - - -	37
Media Appearances - - - - -	17
Presentations by Medical Staff - - - - -	20
TOTAL - - - - -	543
Students attending Social Hygiene Clinics for Clinical Experience:	
- Medical/Resident - - - - -	78
- Nursing - - - - -	17

